

Amendments to the Claims

This listing of claims replaces all prior versions, and listings, of claims in the application.

Listing of Claims

1. (Currently amended) A device for separating blood into blood components, comprising:

a collecting container for receiving whole blood;

a first satellite container connected, in fluid flow communication, to said collecting container through a leukocyte filter for receiving from said collecting container a leukocyte depleted first blood component; and

a second satellite container connected, in fluid flow communication, with said collecting container for receiving from said collecting container a leukocyte depleted second blood component,

said second satellite container being connected to said collecting container through said leukocyte filter,

said leukocyte filter being configured to filter leukocytes and to allow platelets to pass therethrough so as to enable said first satellite container to receive from said collecting container a leukocyte depleted platelet rich plasma component (PRP) and to enable said second satellite container to receive from said collecting container a leukocyte depleted packed red cells component (PRC),

flow control means being provided for allowing fluid flow from said collecting container selectively into said first or said second satellite container through said leukocyte filter, such that said whole blood (WB) is separable into the leukocyte depleted platelet rich plasma component (PRP) and the leukocyte depleted packed red cells component (PRC) with a single leukocyte filter, and

said second satellite container being connected to said collecting container through a conduit means that bypasses said filter, said flow control means being configured to allow fluid flow from said second satellite container into said collecting container only through said conduit means that bypasses said filter.

2. (Canceled)

3. (Previously presented) The device according to claim 1, wherein said second satellite container includes a blood additive and wherein said flow control means are adapted to selectively

feed the platelet rich plasma component (PRP) from said collecting container into said first satellite container through said leukocyte filter to provide the leukocyte depleted platelet rich plasma component into said first satellite container,

feed said blood additive from said second satellite container into said collecting container only through said conduit means by-passing said filter, and

feed the packed red cells component (PRC) from said collecting container into said second satellite container only through said leukocyte filter to provide into said second satellite container leukocyte depleted packed red cells component (PRC).

4. (Previously presented) The device according to claim 1, further comprising

first conduit means connecting said collecting container to said first satellite container through said leukocyte filter, and

second conduit means branching off from said first conduit means downstream of said leukocyte filter to connect said collecting container to said second satellite container, and

wherein said by-pass conduit means branches off from said first conduit means upstream of said leukocyte filter and is connected to said second conduit means.

5. (Previously presented) The device according to claim 1, wherein said flow control means includes sensor means for detecting fluid flow or presence of fluid at selected positions of the device.

6. (Previously presented) The device according to claim 1, wherein said flow control means include sensor means for detecting a parameter representative of a presence of said packed red cells component (PRC) in the filtrate from said leukocyte filter and automatically operated valve means adapted to switch fluid flow communication from said collecting container to said first satellite container to fluid flow communication from said collecting container to said second satellite container when the sensor means detect the presence of said packed red cells component (PRC).

7. (Previously presented) The device according to claim 1, wherein said flow control means include manually operated valves.

8. (Previously presented) The device according to claim 4, further comprising a one-way valve provided in said by-pass conduit means allowing fluid flow only from said second satellite container to said collecting container.

9. (Previously presented) The device according to claim 4, wherein said flow control means include valve means in said second conduit means.

10. (Previously presented) The device according to claim 1, wherein said flow control means are associated with a separator device adapted to cause fluid flow from the collecting container to the satellite containers.

11. (Previously presented) The device according to claim 1, further comprising a third satellite container connected in fluid flow communication with said first satellite container for receiving from said first satellite container a plasma component (PL).

Claim 12 (Withdrawn): A method for separating blood into leukocyte depleted blood components comprising the steps of:

- providing a blood separator device comprising a collecting container (2) for receiving blood, a first satellite container (4) connected, in fluid flow communication, to said collecting container (2) through a leukocyte filter (22) and a second satellite container (6) connected, in fluid flow communication, to said collecting container through said leukocyte filter (22),
- separating blood collected in said collecting container (2) into a first (PRP) and second (PRC) blood component,
- feeding said first blood component (PRP) from said collecting container (2) into said first satellite container (4) through said leukocyte filter to provide a leukocyte depleted first blood component into said first satellite container, while

leaving the second blood component (PRC) within said collecting container (2),

- adding into said collecting container (2) an additive solution for the second blood component (PRC),

- feeding said second blood component (PRC) suspended in said additive into said second satellite container (6) passing through said leukocyte filter (22).

Claim 13 (Withdrawn): A method according to claim 12, wherein said additive solution is fed from said second satellite container (6) into said collecting container (2) through by-pass conduit means (34), by-passing said leukocyte filter (22).

Claim 14 (Withdrawn): A method according to claim 12, comprising the steps of:

- detecting the presence of said second blood component (PRC) in the filtrate from said leukocyte filter (22) and

- switching fluid flow communication from said collecting container (2) to said first satellite container (4) to fluid flow communication from said collecting container (2) to said second satellite container (6) when the presence of said second blood component is detected in the filtrate, thereby to allow recovery into said first satellite container (4) of the filter hold-up of the first blood component (PRP).

Claim 15 (Withdrawn): A method according to claim 12, further comprising separating the second leukocyte depleted blood component (PRP) in said first satellite container (4) into a third (PL) and fourth (PC) blood component and feeding said third blood component (PL) from said first satellite container (4) into a third satellite container (8).

Claim 16 (Withdrawn): Method according to claim 12, carried out with the use of a device having:

- a collecting container (2) for receiving blood (WB),
- a first satellite container (4) connected, in fluid flow communication, to said collecting container (2) through a leukocyte filter (22) for receiving from said collecting container (2) a leukocyte depleted first blood component (PRP),
- a second satellite container (6) connected, in fluid flow communication, with said collecting container (2) for receiving from said collecting container a second leukocyte depleted blood component (PRC),

characterised in that said second satellite container (6) is connected to said collecting container (2) through said leukocyte filter (22), flow control means (36, 38, 42) being provided for allowing fluid flow from said collecting container selectively into said first (4) or second (6) satellite container through

said leukocyte filter (22), whereby whole blood (WB) can be separated into a first (PRP) and second (PRC) leukocyte depleted blood component with a single leukocyte filter (22).

Claim 17 (Withdrawn): Method according to claim 13, carried out with the use of a device having:

- a collecting container (2) for receiving blood (WB),
- a first satellite container (4) connected, in fluid flow communication, to said collecting container (2) through a leukocyte filter (22) for receiving from said collecting container (2) a leukocyte depleted first blood component (PRP),
- a second satellite container (6) connected, in fluid flow communication, with said collecting container (2) for receiving from said collecting container a second leukocyte depleted blood component (PRC),

characterised in that said second satellite container (6) is connected to said collecting container (2) through said leukocyte filter (22), flow control means (36, 38, 42) being provided for allowing fluid flow from said collecting container selectively into said first (4) or second (6) satellite container through said leukocyte filter (22), whereby whole blood (WB) can be separated into a first (PRP) and second (PRC) leukocyte depleted blood component with a single leukocyte filter (22).

Claim 18 (Withdrawn): Method according to claim 14, carried out with the use of a device having:

- a collecting container (2) for receiving blood (WB),
- a first satellite container (4) connected, in fluid flow communication, to said collecting container (2) through a leukocyte filter (22) for receiving from said collecting container (2) a leukocyte depleted first blood component (PRP),
- a second satellite container (6) connected, in fluid flow communication, with said collecting container (2) for receiving from said collecting container a second leukocyte depleted blood component (PRC),

characterised in that said second satellite container (6) is connected to said collecting container (2) through said leukocyte filter (22), flow control means (36, 38, 42) being provided for allowing fluid flow from said collecting container selectively into said first (4) or second (6) satellite container through said leukocyte filter (22), whereby whole blood (WB) can be separated into a first (PRP) and second (PRC) leukocyte depleted blood component with a single leukocyte filter (22).

Claim 19 (Withdrawn): Method according to claim 15, carried out with the use of a device having:

- a collecting container (2) for receiving blood (WB),
- a first satellite container (4) connected, in fluid flow communication, to said collecting container (2) through a

leukocyte filter (22) for receiving from said collecting container (2) a leukocyte depleted first blood component (PRP),

- a second satellite container (6) connected, in fluid flow communication, with said collecting container (2) for receiving from said collecting container a second leukocyte depleted blood component (PRC),

characterised in that said second satellite container (6) is connected to said collecting container (2) through said leukocyte filter (22), flow control means (36, 38, 42) being provided for allowing fluid flow from said collecting container selectively into said first (4) or second (6) satellite container through said leukocyte filter (22), whereby whole blood (WB) can be separated into a first (PRP) and second (PRC) leukocyte depleted blood component with a single leukocyte filter (22).

20. (Previously presented) The device according to claim 5, wherein said flow control means are electro-mechanical valves that are operated and controlled by said sensor means.